

REMARKS

Claim Amendments.

Claims 35, 47, and 62-84 are pending in the application. Claims 62, 72, 76, 77, 79 and 83 are amended herein to correct typographical errors and for clarity with respect to the claims from which they depend. These amendments to the claims do not narrow the scope of the claims within the meaning of *Festo*¹ or related cases.

Species Elections

The Examiner has asserted that the following sets of claims are directed toward patentably distinct species:

1. said detecting said detectable signal comprises detection of fluorescence (Claims 63, 64, and 66)
2. said detecting said detectable signal comprises detection of mass (Claim 64);
3. said detecting said detectable signal comprises detection of charge (Claims 66).

Applicants note that these claims are not mutually exclusive, as said detecting may comprise detection of two or more of the recited features (*i.e.*, fluorescence, mass, and/or charge). Nonetheless, Applicants elect for examination claims wherein said detecting said detectable signal comprises detection of fluorescence, as recited in Claims 63, 64, and 66, reserving the right to pursue additional species if a generic claim is found allowable. Claims 35, 47 and 62-84 are readable on this species.

The Examiner has also asserted that the following sets of claims are directed toward patentably distinct species:

4. said thermostable 5' nuclease comprises a 5' nuclease of a DNA polymerase (claims 69, 70, and 72).
5. said thermostable 5' nuclease is a FEN-1 nuclease (Claims 78-80).

¹ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 122 S. Ct. 1831 (2002)

Applicants elect for examination claims wherein said thermostable 5' nuclease is a FEN-1 nuclease (Claims 78-80) for examination, reserving the right to pursue additional species if a generic claim is found allowable. Claims 35, 47, 62-68, and 71-84 are readable on this species.

The Examiner has also asserted that the following sets of claims are directed toward patentably distinct species:

6. said first nucleic acid molecule is in concentration excess compared to said target nucleic acid (claims 73, 76, and 77);
7. said second nucleic acid molecule is in concentration excess compared to said target nucleic acid (claim 74)
8. said first nucleic acid molecule is in concentration excess compared to said duplex (claim 75)

Applicants respectfully traverse the Examiner's assertion that Species 6, 7 and 8 represent distinct species. For claims to be restricted to different species, they must be mutually exclusive. MPEP 806.04(f). Species are always specifically different embodiments. MPEP 806.04(f). This is not the case here. The claimed method can be configured such that all three of conditions recited by these alleged species are satisfied by a single embodiment. By way of example, and not limiting the claims to any particular embodiments, an embodiment of the method according to Claim 75, using 1X concentration of target nucleic acid, 2X concentration of second nucleic acid molecule, and 3X concentration of first nucleic acid molecule provides all of the elements of alleged species 6, 7, and 8. Thus, these embodiments cannot be "mutually exclusive".

Applicants elect, with traverse for the reasons recited above, Species 6, wherein said first nucleic acid molecule is in concentration excess compared to said target nucleic acid. If one or more generic claims are found to be allowable, Applicants reserve the right to consideration of additional species. Claims 35, 47 and 62-84 are readable on this species.

CONCLUSION

Should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicants encourages the Examiner to call the undersigned collect at (608) 218-6900.

Dated: October 3, 2005



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